

AGENDA ITEM III B

PROPOSED ACADEMIC PROGRAM

SOUTHERN UNIVERSITY-BATON ROUGE

PH.D. IN URBAN FORESTRY

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BACKGROUND INFORMATION

The 1994 Desegregation Settlement Agreement provided for the development and implementation of M.S. and Ph.D. programs in Urban Forestry at Southern University-Baton Rouge. The Board of Regents approved the M.S. program in 1998; now, the University requests approval of the accompanying Ph.D.

More specifically, the Settlement Agreement authorized a possible seven new doctoral programs for SUBR, of which at least four were required. The Regents has already approved new Ph.D. programs in Science/Mathematics Education, Environmental Toxicology, Public Policy, and Nursing at the University. So, if approved, the Ph.D. in Urban Forestry would be the fifth new doctoral program for SUBR under terms of the Settlement Agreement.

OVERVIEW OF PROPOSED PROGRAM

Urban Forestry and arboriculture strive to improve the quality of life through healthy, functioning trees and urban ecosystems. A study of Urban Forestry incorporates a continuum of urban and community forestry issues and concerns, from inner city gardening programs to wildlife and pest problems in the urban/rural interface. Similarly, a concern for urban trees cannot be separated from issues about urban environment (air quality, water/runoff systems, wildlife habitat, etc.)

Briefly, the proposed program builds upon the existing M.S. in Urban Forestry. A total of 68 graduate hours beyond the baccalaureate is required of which a minimum of 24 hours must be in technical courses and seminar work, 9 hours of electives, 15 hours of dissertation research, and 15 hours of dissertation composition and submission. While there are other Ph.D.-level programs which address urban forestry issues, there is no such program uniquely and wholly devoted to this field in United States. Student enrollment/graduation is estimated as follows:

	Year 1	Year 2	Year 3	Year 4	Year 5
Enrollment	6	15	18	18	18
Graduates	0	0	0	6	9

The proposal included the following accumulated five-year budget:

Total New Costs

Three new faculty	\$935,350
Four support personnel	421,685
Graduate assistantships	675,000
Additional library materials	20,000
Contractual services	30,000
Travel	75,000
Supplied and services	20,000
Equipment	405,600
Sub-Total	\$2,582,635

Total New Revenues

Tuition and SCH Revenues	\$143,370
Federal Funds	117,000
Sub-Total	\$260,370

Net Cost **\$2,322,265**

These new costs will have to be covered through special Settlement Agreement funding (expires December 31, 2005) and existing University resources. **Please note that the University provides a revised budget which incorporates consultants' concerns (see p. 10).**

REVIEW BY EXTERNAL CONSULTANTS

Upon submittal of this proposal by the University, the staff engaged the services of a team of external consultants to conduct an on-site review and assessment. This team was composed of: Mr. Michael Goergen, Executive Director, Society of American Foresters; Dr. Susan Stafford, University of Minnesota; and Dr. Oghenehome Onokpise, Florida A&M. The staff summary which follows contrasts consultants observations and recommendations with institutional responses.

STRENGTHS WHICH THE REVIEW COMMITTEE IDENTIFIED

Program Need Is Justified

Report:

The proposal makes a strong case for the need for this program. As the proposal notes, urban forestry continues to be a growing field, one of the largest areas of growth in the field of forestry. The natural resources field is lacking trained professionals, specifically minority trained professionals. There are companies in the private sector that are experiencing limited growth because of a lack of trained personnel in urban forestry, not because of a lack of business opportunities.

There are very few curricula that address urban forest as comprehensively as that of Southern University, and still fewer capable of offering a PhD in the subject. A recent report by the National Research Council (National Capacity in Forestry Research. 2002. Committee on National Capacity in Forestry Research. Washington: National Academy Press, 162 p.) also indicates the lack of Ph.D trained professionals in the field of forestry. Southern University's program would provide a welcome addition.

Current Faculty Are Excellent

Report:

Committee interviews revealed that the faculty of the Urban Forestry Program at Southern University is very hardworking, highly qualified, tremendously experienced in their chosen disciplines and extremely productive in the generation of grant proposals, funding awards and other research opportunities. They have also maintained a very high level of publication including peer reviewed papers in highly reputable national and international journals. Many hold leadership positions in a variety of national and international organizations, and have organized important conferences related to their respective fields.

There is an unusually pleasant degree of camaraderie amongst the faculty which may have been largely responsible for the success the urban forestry program has enjoyed to date. Most importantly, from the interviews the faculty was very enthusiastic about the potential for the long-term success of the urban forestry Ph.D. program. The faculty are very confident about this given the historical development of the urban forestry program at the B.S. and M.S. levels. It is their strong belief that with funds from the State of Louisiana, the university administration, and a variety of grants from many and varied sources, the Ph.D. program in urban forestry would succeed.

Students Appreciate Faculty Dedication and Are Well-Prepared

Report:

Our interviews with students indicated a high degree of confidence in the faculty. In addition, these students we talked with seemed well prepared for the workforce or ready for further graduate education. Their enthusiasm for Southern University's desire to have a Ph.D. program is an indicator of the strength of instruction and mentoring of the existing faculty and administration.

University Administration Is Supportive

Report:

The mandate for taking Southern University to a Research II Institution is coming from the highest levels of the University. The Chancellor of Southern and the President of the System includes this message in all major presentations, speeches, and invited talks. This consistent verbal endorsement of supporting graduate Ph.D. programs – of which the Urban Forestry Program may be of the highest visibility and profile – requires that long-term funding streams be established.

Facilities Are Solid/Cooperation with LSU Should Be Pursued

Report:

There is no question that the facilities at Southern University are more than adequate for the proposed program. There are few forestry programs that have the abundance and quality equipment that Southern University has at its disposal, and the physical resources to use that equipment. There are adequate office spaces and instructional facilities.

The program is particularly strong in GIS facilities and equipment, and a variety of other advanced scientific tools. The GIS facilities, faculty, and graduate students could be used to leverage support from related institutions, specifically Louisiana State University. Support from the existing forestry program at Louisiana State University could quickly supplement courses and research capacity not immediately available at Southern University. This additional support could reduce the difficulties in implementing the program over time. Members of the committee had conversations with faculty and administrators at Louisiana State University, and they are more than willing to establish a partnership where both campuses can benefit from their differing strengths. The committee chair is committed to following up on this should Southern University be interested in perusing such a partnership.

WEAKNESSES AND PROBLEMATIC AREAS WHICH THE REVIEW COMMITTEE IDENTIFIED, WITH RESPONSES FROM SOUTHERN UNIVERSITY-BATON ROUGE

Additional Faculty Resources Are Needed

Report:

This list indicates that there are only six faculty members currently teaching, providing student advising, conducting research and performing extension and outreach activities for the urban forestry program. There will be a tremendous amount of additional responsibilities placed on the faculty when the Ph.D. program is implemented. Thus, there is an urgent need to add a minimum of four new faculty positions to the existing faculty. According to the proposal submitted requesting funds for this program, and the interviews conducted, faculty needs are in the following areas:

1. Wildlife – one faculty
2. Urban Soils – one faculty
3. Entomology – one faculty
4. Urban/Wildland Interface – one faculty
5. Urban Recreation – one faculty
6. Arboriculture – one faculty (this position was not included in the proposal, but we ask the program consider including such a position)

The Ph.D. program's most immediate needs for implementation will be in the areas of wildlife and soils. These two faculty positions must be filled within six months of the approval of the Ph.D. program. It will help to alleviate the problem of the inadequacy of faculty while at the same time enhancing the chances for the accreditation of the entire Urban Forestry Program by the Society of American Foresters. Additional funding should then be sought to hire two more faculty members (probably in the fields of entomology and urban/wildland interface) within 18 to 24 months of program implementation. Given the successes of the existing faculty, adding these new faculty will ensure the successful initiation of the Ph.D. program.

Response:

We agree with the External Reviewers recommendations. As suggested by the External Reviewers, the most immediate needs for implementation of the Ph.D. program will be in the areas of Wildlife/Recreation and Soils. These two faculty positions must be filled within six months of the approval of the Ph.D. program. The UFOR program at SUBR has proposed (via Ph.D. Proposal) funding from the State of LA for these positions. This will help alleviate the problem of inadequacy of faculty while at the same time enhancing the chances for accreditation through the Society of American foresters (SAF).

The UFOR program will seek additional funding to hire two more faculty in the areas of entomology and urban/wildland interface. These could be accomplished within 18 to 24 months. A combination of potential State and external research funds could be utilized to support the above faculty positions.

The current funds from the USDA-FS are allowing the program to increase the level of Arboriculture education and training via industrial partnership and private sectors. The Arboricultural industry is providing matching fund to enhance the training programs. Arboricultural research is currently being accomplished through the USDA-CSREES funds and the Louisiana Department of Agriculture and Forestry (LADA&F). Currently, the majority of Arborists positions in the United States do not require advanced degrees (According to the ISA). However, the majority of Urban Forestry positions require advanced degrees. The main goal of our Ph.D. program is to produce highly trained Urban Foresters not Arborists (as defined by the ISA). The Arboricultural component of the UFOR program has been delivered by our urban forestry faculty since 1992, in collaboration with the International Society of Arboriculture, Louisiana Arborist Association, Arbor Master Inc., Davey Tree, LSU and the City of Baton Rouge, LA. Currently there is no need for hiring additional faculty in this area.

Social Science Offerings Are Needed to Compliment the Curriculum

Report:

The program will need to rely on social science offerings from the larger university community, but social science in urban forestry will also be a need down the road. The program currently has some of the top scientists in their fields, but the social science component is lacking, and likely will be for some time. It is critical that the program address this shortcoming through mechanisms such as seminars and other university departments as interaction with the community at large is critical to the success of urban forestry as a profession. Broadening the faculty will also help alleviate the somewhat narrow research focus based on the similar research backgrounds of some of the faculty. This is not a criticism of the current faculty, but an exciting opportunity for the future development of the program and the research mission of the university.

Response:

We will utilize previously established collaboration among the UFOR, departments/programs in social sciences program and the SU Center for Social Sciences for strengthening the social science component of the UFOR program. This potential can be achieved with minimal cost to the UFOR program and the SUBR.

Additional Library Resources Are Necessary

Report:

Based on a visit to the library and discussions with the library staff, the library has many holdings in a variety of disciplines; however, there are limited materials for urban forestry. It is clear that the library needs to be updated (specifically inclusion of older issues of research journals).

Library staff and others attributed this inadequacy of materials to the fewer numbers of publications that may be available for urban forestry. It is possible that library staff have not adequately sourced several publications that carry articles related to the discipline. It is also possible that there have not been resources specifically allocated for the acquisition of books,

journals, and bulletins in this discipline. Therefore, it will be necessary to provide specific funding for library acquisitions that will strengthen the urban forestry Ph.D. program. In the short term, as the proposal includes, Southern University can use library resources at Louisiana State University to supplement whatever resources are presently unavailable in the library. We note that the library has adequate computer technology to meet the needs of the proposed program.

Response:

We agree with the suggestions by the External Reviewers. The SU library needs to be updated to include older issues of research journals in the areas of Urban Forestry.

We are currently working with the International Society of Arboriculture (ISA) and the Society of American Foresters for obtaining old issues of the Journals through library donations. In addition, there are many journals which could be accessed via internet through the SU library. SU and LSU have established MOU which allows for the SU students and faculty to access their journal holdings.

Many additional urban forestry technical reports, books, and articles are available through Southern Regional USDA-Forest Service websites (free access). The UFOR Ph.D. proposal outlines the financial resources needed to achieve success in this area.

Additional Collaborative Efforts with the Private Sector Would Be Helpful

Report:

The program has a good placement record, but there could be more collaborative opportunities with private urban tree care companies and others in the private sector to ensure the program stays on the cutting edge of research and employer needs.

Response:

We agree with the reviewers suggestions pertaining to the enhancement of collaborative opportunities with private industries in the areas of tree care. We are currently working with the Davey Tree Company, Arbor Master Program, and the USDA-FS to enhance our ability to place more students in industrial sector of the urban forestry market, including arboriculture and tree care in general.

The UFOR program at SU has several major industrial partners that are collaborating. In fact, in March 2005 there would be several visits to the SUBR Urban Forestry program from the major US and International Tree Care industries pertaining to expansion and enhancement of our placement with the industry. We intend to request funding for student training and strategic planning for potential research and educational collaboration.

Long-Term Funding Concerns

Report:

Funding is one of the larger themes of our report. While we feel the program cost estimates are realistic, we are concerned about maintaining consistent income streams, and would like to be sure there are dedicated funds available to the program. That said, we would like the program to reevaluate its support needs. There may be additional staff support needed that is not currently covered in the proposal. These needs may be met through the larger graduate program, and the committee was unclear about that point. Indirect costs may also be an issue in the future. Many granting institutions are paying close attention to project indirect costs and are requesting that universities control those costs or even eliminate them all together from project proposals. This may be an issue for the urban forestry program, and we hope the program can have contingency plans in place to cover these important but often overlooked costs. We are also not aware of salary requirements and the cost of living in the greater Baton Rouge area, and trust that the figures provided in the report are consistent with other university programs and the community at large.

Funding is rarely adequate for any university program. However, Southern University's faculty in the urban forestry program are capable of securing significant funding through grants with federal agencies, and hopefully, an increasing amount with the private sector as well. There is no doubt that funding through research will continue into the future, especially with such a motivated faculty. There is a need for a long-term commitment for funding from the University. While the faculty is very capable of securing research grants that help support Ph.D students, there will be periods in between grants when additional support will be needed. Our hope is that the State of Louisiana and Southern University will set aside such funds to ensure the continuity of the graduate program and that there are no significant gaps in research or assistantship funds.

The program has a good placement record, but there could be more collaborative opportunities with private urban tree care companies and others in the private sector to ensure the program stays on the cutting edge of research and employer needs.

Response:

We totally agree that to achieve its potential the Urban Forestry Program at SUBR would need sustained recurrent base funding. The proposal for establishment of the Ph.D. program outlines and quantifies the necessary funds (see table) needed from the State to achieve its potential. In addition, as indicated by the External Reviewers Report, "*the faculty of UFOR at SUBR is very hardworking, highly qualified, tremendously experienced in their chosen disciplines and extremely productive in the generation of grants and other research opportunities*". Therefore, we have an excellent track record in obtaining external funding for the program with potential for enhancement. Currently, the SU Agricultural Research and Extension Center (SU Ag Center) is providing funds from the United States Department of Agriculture, Cooperative Research, Education and Extension Service (USDA-CSREES) to enhance the research activities of the UFOR at SUBR. This includes funding for graduate research assistants and faculty researchers. In addition, the SU Central Administration is working on a joint Memorandum of Understanding

(MOU) between the SUBR and the SU Ag Center to better facilitate and optimize collaborations and funding opportunities.

The allocation of a portion of the indirect cost (14% to 44%) from funded external grants plus the state matching portion for the SU Ag Center could drastically enhance the financial resources available to the program. The potential for obtaining external funding from the federal government, industry and private sources could drastically be improved by the establishment of the Ph.D. program. Currently, many federally funded programs could not be targeted due to lack of an UFOR Ph.D. program at SUBR, especially, for Ph.D. research and education scholarships.

We totally agree with the suggestions of the External Reviewers pertaining to the need for the State funding to ensure the continuity of the Ph.D. program and to avoid any significant gaps in research or assistantship funds. The Ph.D. proposal outlines the necessary funds needed to ensure successful outcomes.

**SUMMARY OF ESTIMATED COST FOR PROPOSED PROGRAM
FOR THE FIRST FOUR YEARS**

	First Year Amount	Second Year Amount	Third Year Amount	Fourth Year Amount
Faculty	\$161,223	\$374,709	\$374,709	\$374,709
Graduate Assistants		\$ 90,000	\$225,000	\$360,000
Support Personnel	\$105,421	\$105,421	\$105,421	\$105,421
Fellowships & Scholarships				
Sub-Total	\$266,644	\$570,130	\$705,130	\$840,130
Equipment	\$202,800	\$202,800		
Travel	\$ 24,375	\$ 16,875	\$ 16,875	\$ 16,875
Supplies	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
Contractual				
Services	\$ 18,750	\$ 3,750	\$ 3,750	\$ 3,750
Library Resource	\$ 10,000	\$ 5,000	\$ 5,000	\$ 5,000
Sub-Total	\$260,925	\$233,425	\$ 30,625	\$ 25,625
Grand Total	\$527,569	\$803,555	\$735,755	\$865,755

STAFF ANALYSIS

Southern University-Baton Rouge has submitted a strong, well-conceptualized proposal. The high quality of this proposal was recognized in the consultants' report. In particular, the consultants made many laudatory comments about the current Urban Forestry faculty's expertise and dedication.

Consultants made several recommendations about perceived weaknesses in the areas of faculty, library resources, curricular enhancements, and collaboration with the private sector. The University addressed each fully and appropriately.

The primary area of concern that remains unresolved is long-term, sustained program funding. Costs to afford this program are significant and, with the exception of some limited additional student revenue and possible new external/grant support, it appears that the University expects the State to provide the lion's share of monies needed to cover new costs. Given the complexities involved in State funding of Settlement Agreement programs and uncertainties regarding future levels of State support for higher education, the Academic Affairs staff referred SUBR's financial expectations to Mr. Donnie Vandal, Associate Commissioner for Administration and Finance. He agreed with staff that resolution of this issue will require a thorough study of the University's current and future finances and could not be immediately addressed.

Despite this lingering concern, the staff believes it critical that this program be conditionally approved for implementation in Fall, 2005, prior to expiration of the Settlement Agreement. Stipulations to the motion of approval will be needed to address formulation of a stable, long-term program budget and the number and timing of additional faculty hires.

STAFF RECOMMENDATION

The staff recommends that the Academic and Student Affairs Committee grant conditional approval for the proposed Ph.D. program in Urban Forestry (CIP Code) at Southern University-Baton Rouge, effective Fall, 2005, with the following stipulations:

- 1. The University shall meet with Mr. Donnie Vandal, Associate Commissioner for Administration and Finance, to resolve issues regarding a stable source of long-term funding for the program. These discussions will lead to development of a five-year budget plan for the program which appropriately addresses external consultants concerns. This budget shall be submitted to the Commissioner of Higher Education by September 1, 2005.***
- 2. By Fall, 2006, the University shall hire two additional appropriately qualified faculty to staff the program. A report indicating accomplishment of this stipulation shall be submitted to the Commissioner of Higher Education by September 1, 2005.***

3. *By Fall, 2007, the University shall hire an additional (third), appropriately qualified faculty to staff the program. A report indicating accomplishment of this stipulation shall be submitted to the Commissioner of Higher Education by September 1, 2008.*
4. *By Fall, 2008, the University shall hire an additional (fourth), appropriately qualified faculty to staff the program. A report indicating accomplishment of this stipulation shall be submitted to the Commissioner of Higher Education by September 1, 2009.*